



magicolor 2300 Series Course

CERTIFICATION EXAM

Student Name _____

Company Name _____

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Date of Test _____

Supervisor _____

Graded by _____

Date _____

Score _____ correct out of _____ = _____ %

INSTRUCTIONS

Before beginning, make sure you've completed the administrative information on the exam cover sheet.

This exam consists of 50 test items worth 2 points each. A score of 80% (40 out of 50) is required to pass. You may use the magicolor 2300 Series CBT for reference during the exam. The exam is an Acrobat 4.0 PDF file and you must have Acrobat 4 Reader software (or later versions). You can download the Acrobat Reader at www.adobe.com. You can print the exam and mark the answers for faxing or mailing. Or you can mark the answers and fill in the blanks on your computer screen using Acrobat Reader. After you complete the exam save the file with a new name, and email the file.

For grading, mail, fax, or email your completed exam to:

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One Magnum Pass
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USA
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We will grade the exam, and, if you score of 80% or higher, we will email a certificate of completion to the address on the exam cover sheet. You will be notified if you score less than 80%.

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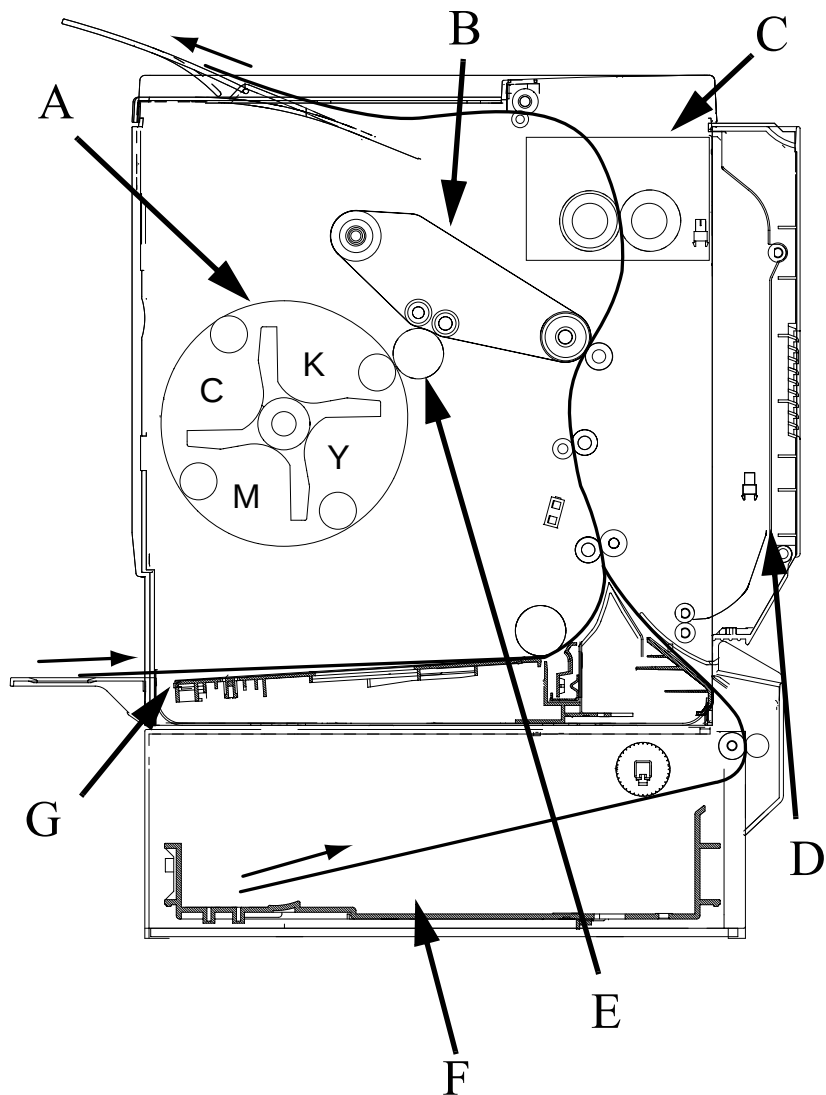
1. The print speed for black and white letter/A4 paper is:
 - a. 35 ppm duplex
 - b. 22 ppm simplex
 - c. 16 ppm simplex
 - d. 4 ppm simplex
2. The manual feed tray on the magicolor 2300 holds:
 - a. approximately 50 sheets
 - b. one ream of paper
 - c. 200 sheets of plain paper
 - d. 500 sheets of 40 lb paper
3. Which of the following media sizes is not supported on the optional feeder?
 - a. A4
 - b. letter
 - c. legal
 - d. none of the above
4. The maximum life expectancy of the drum cartridge is:
 - a. 10K
 - b. 45K
 - c. 30K
 - d. 8K
5. The part number for the high capacity yellow toner cartridge is:
 - a. 1710517-006
 - b. 1710517-002
 - c. 1710517-007
 - d. 1710517-008
6. The part number for the high capacity black toner cartridge is:
 - a. 1710517-006
 - b. 1710517-002
 - c. 1710517-007
 - d. 1710517-005
7. The part number for the high capacity cyan toner cartridge is:
 - a. 1710517-006
 - b. 1710517-002
 - c. 1710517-007
 - d. 1710517-008

8. The image transfer roller unit maximum life expectancy is:
 - a. 200K
 - b. 300K
 - c. 500K intermittent
 - d. 120K
9. The maximum duty cycle for the printer is:
 - a. 35K/month letter/A4
 - b. 70K/month letter/A4
 - c. 75K/month ledger
 - d. 1K/month letter/A4
10. When the humidity is 70% to 85%, the paper jam rate is:
 - a. 3/2000 simplex, 3/1000 duplex
 - b. 3/5000 simplex, 3/2500 duplex
 - c. 2/1000 simplex, 2/500 duplex
 - d. 2/1500 simplex, 2/3000 duplex
11. The wrinkled paper rate under ideal environmental conditions for the printer is:
 - a. 1/2000 simplex, 1/1000 duplex
 - b. 1/5000 simplex, 1/2500 duplex
 - c. 1/1000 simplex, 1/500 duplex
 - d. 1/1500 simplex, 1/3000 duplex

Use this diagram to identify the following subsystems in the printer.

12. PC Drum Cartridge

13. Fusing Unit



14. Which of the following is not a general safety precaution for the printer?

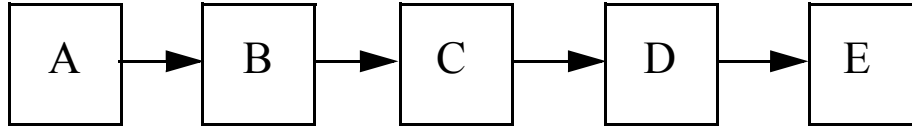
- a. When moving the product or removing an option, use care not to injure your back or allow your hands to be caught in mechanisms.
- b. If your eyes are exposed to the laser beam, immediately flush your eyes with water.
- c. Provide good ventilation at regular intervals if a service job must be done in a confined space for a long period of time.
- d. Wherever feasible, keep all parts and covers mounted when energizing the product.

15. The relative humidity (RH) of the printer environment must be within:

- a. 10-80%
- b. 15-85%
- c. 20-80%
- d. 17.5-82.5%

16. Storage temperature of the toner cartridge should be:

- a. -0°C to 35°C / 32°F to 95°F
- b. 20°C to $+40^{\circ}\text{C}$ / 68°F to 104°F
- c. 0°C to 40°C / 32°F to 104°F
- d. 0°C to $+30^{\circ}\text{C}$ / 32°F to 86°F



This block diagram shows the five xerographic processes in the printer in sequence. Use the letters in the block to match the following terms to the sequence of the xerographic process for the printer.

17. Exposure - block _____

18. Transfer - block _____

19. The latent image on the PC drum is formed when the laser strikes the charged drum and discharges dots which form the image.

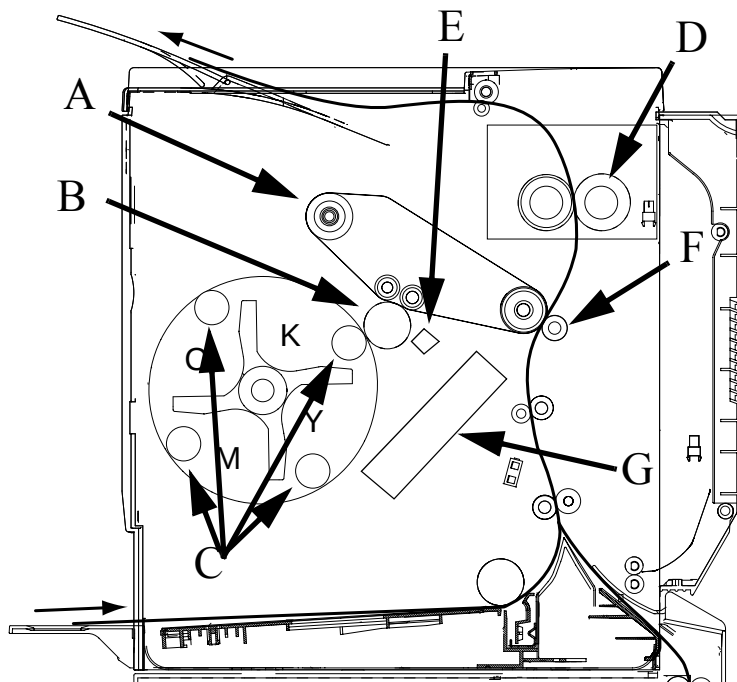
- a. True
- b. False

Use the following diagram to label the components in the answer blanks below.

20. PC drum _____

21. Transfer roller _____

22. Fuser _____



23. After exposure, the PC drum is charged by the scorotron system.
- True
 - False
24. When attaching the optional units to printer, (feeder and duplexer):
- each optional unit contains its own motor drive system
 - the main motor (M1) drives the feeder but not the duplexer
 - the optional units have no parts that need drive from the engine
 - only the feeder needs its own drive; the main motor drives the duplexer and mailbin
25. There are four sensors in the paper path including the duplexer.
- True
 - False
26. In the MPT, paper take-up is initiated when _____, then the tray lifts and the paper take-up roller pushes the paper into the printer.
- the main motor stops
 - the main motor starts
 - the paper take-up solenoid (SL1) is energized
 - the missing teeth on the take-up roller drive gear engage the drive gear
27. What keeps multiple sheets from feeding in the second cassette?
- a paper separating roller
 - a paper separating pad
 - paper separator fingers
 - all of the above
28. The photoconductive drum used in the printer is the _____ type.
- selenium
 - zinc oxide
 - organic photoconductor
 - film transfer
29. The electrostatic latent image is formed on the surface of the PC drum by:
- laser light emission from the print head
 - LED light emission from the print head
 - reflected light from the original copy
 - digitally forming the dots on the surface
30. CD direction is defined as:
- horizontal scanning direction
 - vertical scanning direction
 - diagonal scanning direction
 - field detect direction

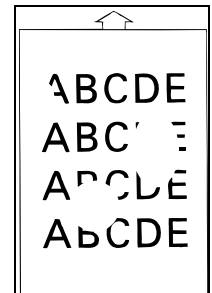
31. Drive for the developer roller is provided by:
- the rack motor
 - the developer motor
 - the main motor
 - the internal cartridge motor
32. The stop position for each toner cartridge is determined by the:
- rack motor
 - rack lock lever and home position sensor
 - the stepper motor
 - software
33. The installation of a new toner cartridge is detected by:
- a setting on the control panel
 - a flag on each cartridge
 - a reflector on the cartridge and a sensor
 - the weight detected in the rack
34. Drive for the image transfer belt is provided by:
- the main motor M1
 - the transfer belt motor M3
 - the rack motor M2
 - the developer motor
35. All four color images are transferred to the paper on second image transfer.
- True
 - False
36. During second image transfer the second image transfer roller pressure contact _____ is energized or deenergized.
- clutch
 - motor
 - solenoid
 - spring
37. The fuser on the printer contains two heaters, one in the pressure roller and one in the heat roller.
- True
 - False
38. After warm-up, temperature control during stand-by is maintained at a temperature of:
- 157°C
 - 175°C
 - 171°C
 - 180°C

39. When printing on plain paper in monochrome, the fuser temperature is maintained at:
- a. 157°C
 - b. 166°C
 - c. 152°C
 - d. 171°C
40. When printing on plain paper in color, the fuser temperature is maintained at:
- a. 174°C
 - b. 166°C
 - c. 169°C
 - d. 171°C
41. When the duplexer is installed, the drive source of the paper output roller changes from the main motor to the _____.
- a. transport motor (M1)
 - b. turnover motor (M8)
 - c. main drive motor (M1)
 - d. rack motor (M2)
42. What is the purpose of AIDC control?
- a. to stabilize image density
 - b. to stabilize image transfer
 - c. heats the roller in the fusing unit
 - d. adjusts the internal temperature of the printer
43. Which of the following switches is the power switch?
- a. S1
 - b. S2
 - c. S3
 - d. S4
44. Which of the following motors in the duplexer drives the feed-back roller and the transport roller?
- a. M7
 - b. M8
 - c. M3
 - d. M4
45. In subtractive color theory, white - cyan - yellow equals _____ (W-Y-C=_____).
- a. red
 - b. green
 - c. blue
 - d. black

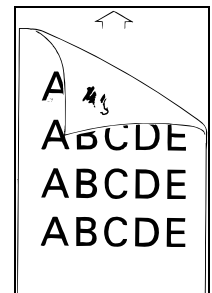
46. When you analyze the symptoms of a broken printer you must have a good working knowledge of the printer's theory of operation.
- a. True
 - b. False

47. When troubleshooting printer problems, don't forget to check the _____ of the machine.
- a. prior history
 - b. maintenance record
 - c. service call history
 - d. all of the above

48. Which of the following would cause this image quality symptom?
- a. improper laser exposure
 - b. damp paper
 - c. poor developing bias
 - d. scratched PC drum



49. Which of the following would cause this image quality symptom?
- a. poor developing bias
 - b. damp paper
 - c. poor development
 - d. dirty fusing roller



50. If the end of the paper does not interrupt the synchronizing roller sensor (PC2) when a set amount of time has passed after the manual feed paper take-up solenoid (SL1) is activated, a paper jam is detected.
- a. True
 - b. False